

REMARKS

This amendment is being filed in response to the Office Action dated June 5, 2007. In that Office Action, claims 1-42 were rejected on prior art grounds. No amendments to these claims are being made. Claim 43 has been added and is fully supported by the specification as originally filed. Accordingly, claims 1-43 are pending in the application.

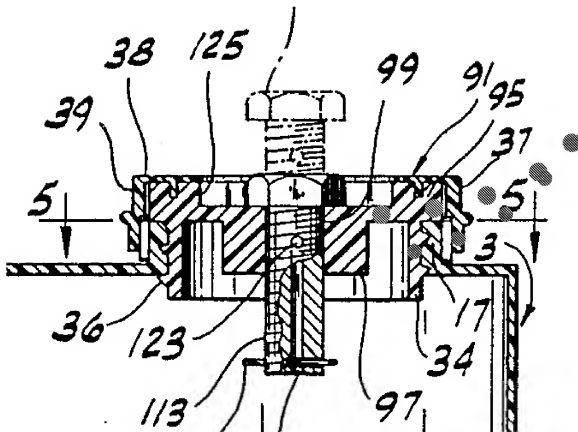
Claims 1, 2, 7, 10-14, 18, 21, 23, 24, 29, 30, and 33 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Jacobi. Claims 1, 9, 12, 19, and 23-25 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Luburic. Claims 3, 15, and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jacobi in view of Bouc. Claims 4-6, 16, 17, 27-29, 31, and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jacobi. Claims 8, 22, 35, 36, and 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jacobi in view of Stolzenfeld. Claims 19, 20, 25, and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jacobi in view of Wildfeuer. And claim 37 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Jacobi in view of Stolzenfeld and Bouc. These rejections are the same as in the first Office Action, except that claim 6 is no longer rejected under § 102(b), but rather under § 103(a). The rejections are respectfully traversed for the reasons discussed below and in Applicant's response to the first Office Action.

Applicant hereby incorporates by reference the arguments contained in its first response filed February 12, 2007. The final rejection contains a number of comments in response to those arguments. For the reasons discussed below, Applicant respectfully disagrees with the comments and therefore requests reconsideration by the Examiner.

Jacobi - § 102 Inherency

The Examiner correctly notes that inherent features of the prior art can be relied upon in rejecting claims for want of patentability. However, as noted in Applicant's first response, inherency requires that the missing descriptive matter must "necessarily be present" in the prior art device. This requirement has not been met by the rejection. To the contrary, the Examiner's statement that Jacobi's closure is "capable" of meeting Applicant's claim limitations is not sufficient to establish inherency. Furthermore, the explicit disclosure of Jacobi indicates that it is not inherent since the outer flange wall 34 of Jacobi has a thinner dimension than the upper

portion interconnecting the elements 95 and 97. The Examiner states that it appears that these dimensions are "similar," but in fact Jacobi's upper portion identified by the Examiner as a fusible link is greater in thickness than at least some portions of the wall 34 which would indicate that this outer wall would melt first. See the blow-up below of the relevant part of Jacobi's Fig. 3 with the blue dot indicating the thickness of the upper portion and the red dot indicating the thickness of the outer flange 34. Thus, this upper portion of Jacobi's closure does not inherently act as a fusible link.



The final rejection further states that the outer wall of Jacobi's closure is supported by the container neck which helps insulate the outer wall. There is no technical basis in Jacobi or that has been set forth in the final rejection to support this conclusion. Whether the container neck helps insulate or instead helps heat the outer flange depends on the source of the heat (e.g., internal to the container versus external, by convective heating or conduction from the container,

etc.). The Examiner has not established that the container neck necessarily insulates the outer flange 34 in normal use.

Also, the Examiner asserts that gas pressure within the container acts upwardly on Jacobi's closure, concluding that this pressure would tend to rupture the upper portion and not the outer flange 34 because the axial thickness of the flange is much greater than that of the upper portion. However, this argument appears to implicitly assume that gas pressure in the container would not apply radially outwardly on the outer flange 34. Applicant respectfully submits that, in fact, the pressure within the container would also apply equally in the radial direction against the outer flange 34 and that the final rejection has therefore not provided a proper technical basis for asserting that gas pressure within the container tends to rupture the upper portion rather than the outer flange 34.

In paragraph 14 of the final rejection, the Examiner addresses an additional argument from Applicant's last response that Jacobi's closure will not act as a fusible bung because the upper portion noted by the Examiner is greater in thickness than the wall of the container, which is also shown as plastic. In particular, the Examiner dismisses this argument on the basis that the rejected claims cover only the bung and not the container as well. However, that is not the correct analysis. Applicant was not distinguishing the subject matter of the claims on the basis of some (unclaimed) feature of the container, but rather was pointing out that Jacobi's closure will not inherently (i.e., by necessity) operate as a fusible bung because the thin plastic container would appear to be likely to melt and rupture before the upper portion of the closure. The disclosure in Jacobi of the container is relevant to this issue because it bears on whether or not his closure will inherently act as a fusible bung. The fact that it could operate as a fusible bung "in appropriate circumstances" such as for thicker containers is not the issue, the point is that it will not inherently so operate and, in fact, given the disclosure in Jacobi of a relatively thin-walled plastic container, it would appear that in his explicitly disclosed apparatus, it will not so operate.

Jacobi - Additional Missing Limitations

In Applicant's last response, distinguishing language from the independent claims was identified relative to Jacobi's closure, and some of that language defines structural features at

least partially using functional language. For example, claim 1 recites "said fusible link is adapted to melt and rupture under conditions of elevated temperature and pressure while said first and second walls remain intact, whereby gaseous pressure in the tank can be vented via said vent passage." Claim 12 recites that "said fusible link is dimensioned relative to said walls such that, at lower temperatures said fusible link prevents the escape of gases through said vent passage and, at one or more higher temperatures said fusible link melts while said walls remain intact, thereby permitting the gases to escape through said vent passage." And claim 23 recites "said venting fuse being dimensioned such that it melts prior to the remainder of the body in response to ambient temperature exceeding the venting fuse's melting temperature."

Paragraph 13 of the final rejection cites *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ2d 1525 (Fed. Cir. 1990), apparently in support of the notion that the Examiner need not give any weight to the above-quoted limitations of the claims. However, the cited case merely held that, to be patentable, one need not "show 'operational differences' of the claimed device over the prior art [because] apparatus claims cover what a device *is*, not what a device *does*." *Id.*, at 1528 (emphasis in original). In other words, the court was stating that it is sufficient for patentability to show that a claimed device is different than the prior art, and that there is no need to also show that it operates differently. This does not mean that functional limitations of an apparatus claim can be ignored, especially where they constrain the subject matter structurally. See, for example, *In re Swinehart*, 439 F.2d 210, 169 USPQ 226, (CCPA 1971), where the court held that the sole distinguishing limitation "transparent to infrared rays" was functional language that must be given weight in determining patentability, and in fact, reversed the rejection of the claim since it had not been shown that the prior art explicitly or inherently disclosed this transparency characteristic. This is directly analogous to the instant case in which Applicant's above-quoted limitations place structural constraints on the claimed subject matter that have not been shown by the Examiner to be inherent in the prior art. For this same reason, the citation of *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977) (regarding a new use or function or inherent properties) is inapplicable since Applicant is not claiming a new use of a known product and, as discussed above, the claimed characteristics or properties have not been shown to be inherent in Jacobi.

Luburic

With regard to the § 102 rejection on the basis of Luburic, paragraph 15 of the final rejection asserts that Luburic's device cannot rupture at the area of reduced wall thickness at the gasket 120. This has not been established as a certainty. At most, the Examiner has established that it might rupture at the tearstrip or that it is likely to rupture there.

Also, Applicant notes that the claims are directed to a "fusible bung" which is not disclosed by Luburic. As known by those skilled in the art, a bung is a plug or stopper that fits into an opening to close off the opening. Luburic discloses a tearstrip formed as a unitary part of a lid for a container. It is not a bung and thus does not anticipate these claims. See *Corning Glass Works v. Sumitomo Electric U.S.A., Inc.*, 868 F.2d 1251, 9 USPQ2d 1962 (Fed. Cir. 1989) which held that, in a claim reciting "An optical waveguide comprising ..." where "optical waveguide" in the preamble was the only distinguishing language from a single prior art reference, that the claim was not anticipated because the device disclosed in the prior art reference was not an optical waveguide. Here, Luburic's tearstrip is not a bung under any reasonable definition and so the recitation of "A fusible bung ... comprising" is sufficient to distinguish these references under § 102.

Furthermore, many of the claims contain other limitations not disclosed or inherent in Luburic. As pointed out in Applicant's last response, claim 12 states that the first and second walls are cylindrical which is not disclosed by Luburic; however, this was not addressed in the final rejection.

§ 103(a) Rejections

Applicants arguments filed in the last response are still applicable and have not been responded to by the Examiner except to indicate in paragraph 16 of the final rejection that the combination of features taken from Stolzenfeld and applied to Jacobi was appropriate because the features need not be able to be bodily incorporated or the combination expressly suggested. Nonetheless, Applicant still traverses the rejection because no proper *prima facie* case of obviousness has been set forth. The asserted motivation given in the rejection for modifying Jacobi using the vent holes of Stolzenfeld is "in order to allow venting of pressure buildup in the

container prior to complete removal of the closure.” But, Jacobi already includes pressure relief venting for this purpose. As shown in Fig. 3 of Jacobi and discussed at Col. 4, line 49 – Col. 5, line 2, Jacobi’s closure incorporates a vent bolt 113 which can be partially unthreaded prior to removal of the closure to vent the container. Thus, Jacobi already includes a venting arrangement and the final rejection does not provide any technically objective reasoning as to why one of ordinary skill in the art would start with Jacobi’s closure, but then eliminate his expressly-disclosed venting arrangement and instead use that taught by Stolzenfeld. Thus, Applicant respectfully submits the combination is improper.

With regard to Applicant’s other arguments concerning the § 103(a) rejections that were not addressed in the final rejection, those arguments are being repeated in the following paragraphs and Applicant respectfully requests consideration of them by the Examiner.

With regard to the rejection of dependent claims 4, 5, 6, 16, 17, 27-29, 31, and 32 as being unpatentable over Jacobi, Applicant respectfully submits that neither these claims, nor the independent claims themselves are rendered obvious by Jacobi. To the contrary, Jacobi is not only entirely silent on the concept of providing a fusible link or fuse on the closure, but also makes absolutely no mention of the portion interconnecting the closure portions 95 and 97. Thus, it would not have been obvious to provide that portion with the dimensions and other features recited in these dependent claims. Without the benefit of Applicant’s specification, one of ordinary skill in the art would have no reason to modify that unmentioned section of Jacobi’s closure in the manner needed to come within these claims. Furthermore, the case citation noted by the Examiner does not support the position taken in the Office Action since that quoted statement from the case is premised on the “general conditions of a claim” being disclosed. The general teaching of a fusible link that melts at elevated temperature is not disclosed in Jacobi and so the dimensional constraints used to implement the fusible link are not obvious in view of Jacobi.

The secondary references (Bouc, Stolzenfeld, and Wildfeuer) are all cited by the Examiner for their teachings of particular features of various dependent claims. However, none of these references make up for the deficiencies of Jacobi. For example, Bouc’s fusible vent is formed on the container lid itself and there is nothing in either of these references or the other

prior art of record that would suggest to one of ordinary skill in the art that Jacobi's unmentioned portion interconnecting the closure portions 95 and 97 could be modified to implement a fusible vent. Accordingly, the independent and dependent claims all patentably define over the combination of Jacobi with these references.

With regard to claim 39, it recites, among other things, an annular venting fuse comprising a thin walled section of polymeric material which interconnects and is unitary with said interior and exterior walls. Again, this is nowhere disclosed or rendered obvious by Jacobi or the other prior art of record. Accordingly, claim 39 is allowable over the prior art. Claims 40-42 each depend from claim 39 and should be allowed therewith.

New claim 43

Independent claim 43 is being filed herewith and recites a fusible bung for a liquid tank, comprising:

- a first wall having at least one fastening feature by which said bung can be mounted at an opening in the tank;
- a second wall spaced inwardly from said first wall with a vent passage being located between said first and second walls; and
- a venting fuse extending radially from said first wall to said second wall, said venting fuse comprising an annular ring having an axial thickness of no more than 0.04 inches and a width that spans said vent passage from said first wall to said second wall, said venting fuse being in a solid state at lower temperatures such that it closes off said vent passage and being formed of a material that under conditions of elevated temperature and pressure will melt and rupture prior to melting of said walls and prior to melting of the liquid tank.

Neither Jacobi nor Luburic or the other prior art of record teach or suggest a fusible bung, much less one that includes the recited venting fuse that is annular, extends radially from the first wall to the second wall, and that has an axial thickness of no more than 0.04 inches. In addition to the other limitations described above, Luburic's tearstrip is not annular, nor does it have the claimed combination of a thickness of no more than 0.04 inches along with a width that spans the vent passage from the first and second wall. Jacobi's closure is not 0.04 inches or less (or would

it be obvious to so make it that dimension), nor does it span a vent passage from a first wall having a fastening feature to a second wall. In Jacobi, the upper portion noted by the Examiner extends between the cylindrical body 97 and closure member 95, not the outer flange 34 which is akin to the claimed first wall. Nor does Jacobi teach a venting fuse that melts and ruptures “prior to melting of said walls and prior to melting of the liquid tank.” As discussed above, the upper portion of Jacobi’s closure does not inherently melt and rupture before outer flange 34, nor does it inherently melt and rupture prior to the container 3.

Conclusion

In view of the foregoing, Applicant respectfully submits that all claims are allowable over the prior art and reconsideration is therefore requested. The Examiner is invited to telephone the undersigned if doing so would advance prosecution of this case.

The Commissioner is hereby authorized to charge any fees or deficiencies, or credit any overpayment associated with this communication to Deposit Account No. 50-0852.

Respectfully submitted,

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